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ABSTRACT

The purpose of this study was to investigate and identify traits describing gifted American Indian elementary school students. A large sample of characteristics was acquired from past or existing programs for gifted American Indian students, an investigative Q study, and relevant literature. The items were narrowed down to create a validation instrument of 60 descriptors representing 7 general categories of giftedness, as grouped by American Indian adults from several Plains tribes. The instrument was applied and completed by teachers of 812 gifted and non-gifted American Indian children in Minnesota, New Mexico, New York, Oklahoma, and Washington. Of these, 251 instruments were analyzed for this study. The results identify 30 items that significantly differentiate gifted American Indians from other students. The items appear to describe goal-directed and highly creative skills involving problem-solving and working in groups. A checklist of 28 positively worded and scored "tribal cultural characteristics" is suggested as an aid in identifying gifted American Indian students. Tables include a t-test of means between gifted and non-gifted groups for each of the 60 descriptors. (TES)

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Screening for Giftedness Among American Indian Students

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Abstract

The purpose of this study was to investigate the traits of giftedness that describe gifted American Indian elementary students. A large sample of characteristics of giftedness was collected from past or existing programs for gifted American Indian students. An item validation instrument was designed containing sixty (60) items representing general categories of giftedness as grouped by American Indian adults from several Plains tribes. The instrument was completed by teachers of gifted and non-gifted American Indian children resulting in thirty (30) items significantly ($p < .01$) differentiating gifted American Indian students. A checklist of twenty-eight positively worded and scored items is suggested for implementation as an aid to finding gifted Indian students.

Screening for Giftedness Among American Indian Students

American Indian students continue to be underrepresented in gifted programs in the schools they attend in the United States (Montgomery & Bushyhead, 1989; Tonemah & Brittan, 1985). This is not because as a group there are fewer gifted Indian students; but, because they are not easily identified by common practices (Baldwin, Gear & Lucita, 1978). The first programs especially designed toward meeting the unique educational and cultural needs of the American Indian gifted student emerged over a decade ago (George, 1987; Locke, 1979; Peacock, 1979). These early efforts to discover appropriate methods to serve the gifted American Indian student have been neglected at best or perhaps lost and abandoned. From the literature on identification there are few procedures that have been validated in selecting gifted Indian children and youth. Widespread adoption of proven strategies cannot take place with little or no information about their effectiveness.

The scoring patterns of Indian children on intelligence tests, especially the Weschler scales have been recently well documented (McShane, 1989). Recommendations to improve test validity for Indian students have been made (Brescia & Fortune, 1988). For example, Meeker (1977) found that American Indian children generally scored higher on Divergent Production and Memory subtests on the Structure of Intellect Learning Abilities Test (SOI-LA). If the strengths and abilities of gifted Indian students are known, the abilities of the Indian student can be identified and developed in special educational programs. Perhaps the problem of underrepresentation of Indians in program for gifted learners lies in the application of the referral or screening process prior to the testing for program placement or the management of the assessment data collected.

Data revealed by high ratings on a descriptive list of characteristics will serve several purposes depending on the needs of students and structure of the school. These may include: (1) increasing awareness of broad-based or culturally relevant traits of giftedness among teachers at a pre-referral stage; (2) structuring a referral for further testing that may be completed by parents, teachers, tribal leaders, school administrators, or others who know a child well; (3) screening potential candidates for special programming or focus special educational needs.

The purpose of the present study was to investigate characteristics of Indian students through various descriptive statements on a tribal cultural checklist that might be able to distinguish gifted from non-gifted Indian students at the elementary level. Checklists, rating scales or lists of characteristics of giftedness are commonly used to guide teacher judgment in nominating or referring students for further testing or special educational services. Checklists are structured to encourage a broader view of exceptional ability than what is readily recognized in a classroom

setting, namely high academic achievement. Richert, Alvino & McDonnell (1982) and Waters & Silverman (1988) suggest the use of screening checklists to find able culturally diverse students or children who do not achieve in traditional school settings. These suggestions have yet to be validated with empirical evidence for how well the checklist differentiates gifted from non-gifted within diverse groups.

The difficulty in describing the behaviors of gifted children as a group has been documented (Birch, 1984; Clark, 1983). Within any cultural group gifted children are not all alike. The students' educational needs, personality types, world views and learning styles differ among dominant culture children. Such diversity is exacerbated when the focus is culturally different groups.

In addition, the diversity among Indian peoples makes broad generalizations invalid and nearly impossible. There are 177 tribes recognized by the United States government (Maker & Schiever, 1989). Faas (1982) found through interviews with Indian and non-Indian people in Arizona differences exist in descriptions of giftedness according to the degree of adherence to a traditionally Indian way of life. Educational levels, social, religious, and political concerns further differ among the many tribes (Pfeiffer, 1989). Yet, behavioral characteristics found to be descriptive of gifted Indian students may prove to be helpful to teachers as screening or pre-referral strategies in identification of gifted Indian students. An awareness of which tribal cultural characteristics of giftedness have cross-tribal meaning is needed.

Method. An instrument was designed containing sixty (60) descriptors of giftedness. The descriptors were derived from various gifted programs for Indian children in the United States, an investigative Q study (Brown, 1980; Stephenson, 1953) of types of gifted (Montgomery & Bushyhead, 1989) and the relevant literature. From a list of nearly two hundred (200) items, broad categories, such as academic, leadership, tribal values, and nature-related skills emerged; subsequently representative items from each category were chosen. The items were presented to the predominantly Plains Indian advisory board for the American Indian and Research Development, Inc. of Norman, Oklahoma. This group assigned items to various conceptual categories and labeled the newly expanded categories in a concept development group activity. The result was a 60-item instrument with seven categories.

A commitment to participate in the study was solicited from a liaison person at twenty-nine (29) focus schools. A focus school was identified as one which served Indian elementary students in its educational programming for gifted. Each school had a significant number of Indian students in the total population or was an all-Indian school. The twenty-nine (29) liaison people were requested to solicit and train teachers of the gifted Indian students to complete the rating scales. The training consisted

of the provision of a written document with information about the study and directions for completing the instrument. Teachers were required to know the students for at least six months before they were asked to rate the characteristics of giftedness. This length of time was necessary to ensure traits which would seldom be displayed in school were not overlooked.

A total of eight hundred twelve (812) rating scales (406 non-gifted and 406 gifted) were mailed to the twenty-nine (29) liaison people at school sites in the five target states of Minnesota, New Mexico, New York, Oklahoma and Washington. Of these, nineteen (19) liaisons returned a total of three hundred fifteen (315) completed instruments. The response rates can be examined both as a liaison response and the number of instrument responses. Table 1 shows that Oklahoma liaison people responded more frequently and returned the highest percentage of instruments. In an attempt to improve the low response rates, a personal phone call was made to non-responding liaisons. Four liaisons returned instruments not completed. Reasons for the liaison inability to comply were not enough time, teacher on summer vacation, teacher not returning or inadequate numbers originally reported as identified Indian elementary students. The low instrument return rate was due in part to an inability to recruit teachers to rate non-gifted students. Of the groups returning instruments, the return rate was an overall 38.8%.

Of the 315 students rated, 251 instruments were analyzed for the present study. Data were included and analyzed for two groups of students: those who were identified gifted (N=163) and those who clearly were considered to be average learners (N=88). Those students who were thought to have a potential for giftedness but were not currently identified (N=52) using the criteria of the school district were not included in analyses because of a potential for confounding the effect of any differences. This categorical information was asked of teachers as part of the questionnaire. Subjects placed in other special education programs (N=12) were also excluded from analyses. There were 123 boys, 120 girls with 8 nonspecified by gender. The distribution of subjects across grade levels is reported in Table 2.

Results. The sixty items were subjected to a calculation of a mean score with a t-test between the means of the gifted group (G) and non-gifted (NG) group. Refer to Table 3 for the t-test scores. The items that were significant beyond chance as listed in Table 3 are included in the Tribal Cultural Checklist for Elementary Indian Children (see Table 4).

The schools participating in the study generally identified children for inclusion in the gifted program with a variety of procedures. Informants were the 19 participating liaisons who represented data collected from 27 different school sites. Generally, the procedures used to identify the gifted students included intelligence tests, such as the Weschler scales (WISC-R)

and the Otis Lennon, and achievement tests, such as the Metropolitan Achievement Tests, the California Test of Basic skills or the Iowa test. Oklahoma schools primarily used the WISC-R and Minnesota schools used the Iowa test. New York schools also administered a Pupil Evaluation Profile (PEP) to each student, plus several of the New York focus schools used district made screening devices. One such district used 48 recognizable and 48 hidden characteristics to determine giftedness. Another focus school in Minnesota also used a district made form to assess leadership, creativity, performance and fine arts. Of particular interest was a cultural outline form recently developed by a focus school in New Mexico. It included areas of songmaking, group language, customs and use of raw materials with input from tribal leaders.

Of the 251 students rated, 131 were at least half Indian and 64 of that group were full-blood Indian. The students were rated by 129 Indian raters and 100 non-Indians.

Discussion. The results of this study bring forth some interesting indications. The focus of an earlier study by AIRD (Montgomery & Bushyhead, 1989) included an extensive search for programs with identification strategies proven successful in finding gifted elementary students. Despite these ardent efforts to discover the programs and recruit gifted Indian students in grades K-6, most students who were rated were in grades three through seven. It appears that finding any gifted programs for very young children in kindergarten or first grade is an issue that compounds the problem of finding identified gifted Indian young children. Programs for the very young gifted child do not occur as frequently as those for older elementary children, and very rarely are very young Indians placed in gifted programs (See Table 2).

The results of this study indicate several characteristics that appear to differentiate gifted Indian children. The significant ($p < .01$) items are listed in Table 4 and comprise the Tribal Cultural Checklist for Elementary students.

The results indicate that gifted Indian students are believed to display some traits similar to dominant culture giftedness, such as language precociousness. The gifted Indian child may have a large vocabulary and use words expressively to reflect thought and meaning. The teachers ranked their identified gifted children as more likely to have a questioning attitude, good memory and curiosity. Areas that describe non-gifted Indian children better than gifted are respectfulness to tribal elders and a value for tribal traditions. It may be important to note that gifted and non-gifted students were not rated differently on such characteristics as tribal pride, patience, sense of humor, physically coordinated, and expressive of emotion.

The ways in which a gifted Indian child may differ from non-Indian

gifted children can be extracted from a comparative analysis of the Tribal Cultural Checklist and any one of the lists available for dominant culture use. The primary differences initially appear to establish as descriptors of gifted Indians the skills involved with problem solving, working in groups, goal-directed and highly creative.

Limitations. The checklist was developed based on the comparative ratings by teachers of the students. Further analyses and investigation is needed on the influence of rater's length of time acquainted with student and degree of Indian blood.

The students in this study were identified by divergent methods. Although most districts reported multiple criteria, the range of alternatives was from qualification on an individual intelligence test (focus school in Oklahoma) to the use of a district made profile instrumentation (focus school in New York). Perhaps further analysis of variance by school will discover what differences may exist according to the identification process employed.

A decision about what measures to use to develop predictive validity must be made. Perhaps a correlation to an individual intelligence test would not be the best strategy.

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Table 1
Response Rates by States for Item Validation Instruments

	Liaison		Instruments	
State	n	%	n	%
Minnesota	3 of 4	75.0	49	35.5
New Mexico	4 of 7	57.1	60	47.8
New York	3 of 6	50.0	33	17.0
Oklahoma	7 of 8	87.5	153	64.8
Washington	2 of 4	50.0	20	16.9

Table 2

Grade Distribution of Indian Students Rated on Checklist

Grade	n
K	0
1	3
2	14
3	33
4	37
5	53
6	59
7	43

Note. Missing data = 9

Table 3

t-test of the Item Means Between Gifted and Non-gifted Group

Item	Non-gifted X (n=88)	Gifted X (n=163)	t	p
Linguistic Ability				
1. Uses words to express thought and meaning.	3.96	4.52	4.08	.000***
2. Has a large vocabulary.	3.47	4.34	5.57	.000***
3. Speaks a native language.	2.57	2.58	.08	.933
4. Learned to read at an early age.	3.01	3.34	2.58	.011*
5. Listens well and remembers things that are heard.	3.90	4.47	4.12	.000***
6. Uses expressive speech, starting at an early age.	3.19	3.47	2.49	.014*
7. Expresses an interest in telling stories previously heard or imagined.	3.74	4.08	2.42	.017*
8. Uses Indian symbols indicating talent in language, drawing or writing.	2.75	2.47	1.75	.082
Internal Motivation				
9. Is persistent in seeking product completion.	3.61	3.99	2.20	.029*
10. Becomes bored with routine work often.	2.77	3.54	4.46	.000***
11. Exhibits a questioning attitude.	3.34	4.30	5.67	.000***
12. Demonstrates tribal or family pride through personal effort.	3.39	3.31	.44	.66
13. Practices to excel in a skill area.	3.50	4.06	3.57	.000***
14. Is patient; very attentive.	3.60	3.72	.66	.51
15. Is persistent in solving problems.	3.48	4.02	3.22	.002**

Item	Non-gifted X (n=88)	Gifted X (n=163)	t	p
16. Gives best effort; goes to limit of ability.	3.35	3.84	2.85	.005**
17. Wants to know more about many things.	3.52	4.43	5.86	.000***
18. Defines personal goals at an early age.	3.06	3.29	1.89	.06
Creative Ability				
19. Displays a great deal of curiosity.	3.59	4.34	4.91	.000***
20. Exhibits a strong sense of humor.	3.96	4.10	1.02	.309
21. Imagines stories with detail.	3.55	4.03	3.23	.001***
22. Improvises with common materials.	3.39	3.84	2.82	.005**
23. Invents ways to make improvements to things or ways of doing things.	3.15	3.74	3.42	.000***
24. Takes risks to do well.	2.90	3.40	2.79	.006**
25. Uses imagery to gain insight, ideas or understanding.	3.00	3.63	3.88	.000***
26. Enjoys doing things in new ways.	3.67	4.14	2.96	.004**
27. Acts things out; enjoys drama.	3.22	3.80	3.34	.001***
28. Tends to enjoy fantasy.	3.59	3.85	1.67	.097
Leadership Abilities				
29. Makes sure all group members have a chance for input.	3.47	3.65	1.17	.244
30. Knows self; understands own abilities and feelings.	3.47	3.79	2.04	.043*
31. Generates ideas in group problem solving.	3.26	4.07	4.84	.000***
32. Prefers to work with others.	4.05	3.74	2.00	.047*

Item	Non-gifted X (n=88)	Gifted X (n=163)	t	p
33. Shares knowledge and helps others learn.	3.77	4.04	1.82	.071
34. Displays interest in tribal culture (including art, history or government).	3.46	3.21	1.62	.106
35. Has influence in group decisions.	3.52	4.04	3.19	.002**
Motor Abilities				
36. Is physically well-coordinated.	4.22	4.18	.24	.807
37. Mastered physical milestones at an early age (riding a trike, hopping, skipping, etc.).	3.49	3.26	2.20	.03*
38. Moves with agility.	4.15	4.10	.30	.767
39. Is physically strong.	4.10	4.01	.64	.521
40. Endures in games or sports.	4.11	3.96	1.05	.296
41. Manipulates tools (writing, cutting, coloring) with dexterity.	4.15	4.21	.47	.64
42. Learns new physical skills rapidly.	3.94	3.92	.17	.864
Learning Style Preferences				
43. Concentrates well when information is presented as a whole.	3.65	4.24	3.87	.000***
44. Solves problems systematically.	3.33	4.12	4.72	.000***
45. Responds well to concrete ideas or things.	3.92	4.43	3.82	.000***
46. Prefers to work independently.	3.17	3.42	1.31	.191
47. Responds readily with thoughts, words, or actions.	3.46	4.16	4.23	.000***

Item	Non-gifted X (n=88)	Gifted X (n=163)	t	p
48. Displays a well-developed sense of direction.	3.27	3.88	3.60	.000***
49. Sees logical solutions to problems.	3.30	4.23	5.84	.000***
50. Understands and uses non-verbal language; expressive of gestures.	3.84	4.20	2.59	.011*
51. Tends to enjoy learning about factual events and things.	3.73	4.29	4.05	.000***
52. Readily grasps abstract concepts.	3.18	3.98	4.81	.000***
Personal Orientation				
53. Exhibits a concern for the environment or nature.	3.72	4.15	3.24	.001***
54. Respects tribal elders.	3.53	3.12	2.94	.004**
55. Expresses a feeling and emotion.	4.00	4.07	.77	.445
56. Possesses a strong sense of self within family.	3.89	4.07	1.34	.183
57. Clarifies things to reflect truthfulness; honesty seems to be a rule of living.	3.74	3.90	1.09	.278
58. Cooperates with others in class.	4.26	4.17	.72	.47
59. Has a heightened sense of right and wrong; believes in fairness toward others.	3.77	4.06	1.89	.06
60. Values tribal traditions.	3.51	3.07	3.259	.001***

* p level = .05
** significant at p = .01
*** significant at p = .001

Note: Number 32, 37, 54 and 60 move in the opposite direction from the rest of the items.

Table 4

Tribal Cultural Characteristics of Elementary Children*

Linguistic Ability

1. Uses words to express thought and meaning.
2. Has a large vocabulary.
3. Listens well and remembers things that are heard.

Internal Motivation

4. Becomes bored with routine work often.
5. Exhibits a questioning attitude.
6. Practices to excel in a skill area.
7. Is persistent in solving problems.
8. Gives best effort; goes to limit of ability.
9. Wants to know more about many things.

Creative Ability

10. Displays a great deal of curiosity.
11. Imagines stories with detail.
12. Improvises with common materials.
13. Invents ways to make improvements to things or ways of doing things.
14. Takes risks to do well.
15. Uses imagery to gain insight, ideas or understanding.
16. Enjoys doing things in new ways.
17. Acts things out; enjoys drama.

Leadership Ability

18. Generates ideas in group problem solving.
19. Has influence in group decisions.

Learning Style Preferences

20. Concentrates well when information is presented as a whole.
21. Solves problems systematically.
22. Responds well to concrete ideas or things.
23. Responds readily with thoughts, words, or actions.
24. Displays a well-developed sense of direction.
25. Sees logical solutions to problems.
26. Tends to enjoy learning about factual events and things.
27. Readily grasps abstract concepts.

Personal Orientation

28. Exhibits a concern for the environment or nature.

* $p > .01$